

ABSTRACT(Figures 1 and 7)APPARATUS AND METHOD FOR  
PERFORMING AN ASSAY

A micro-reactor (10) is formed from a first glass block (11) having first and second grooves (14,17) formed in an upper surface (13) and a second glass block (12) having a lower surface (26) that closes the first groove (14) and parts of the second groove (17) to form corresponding channels. An aperture (31) extends through the second block (12) to a part of the upper surface (13) of the first block (11). This part (called the inner surface 32) has a number of parts (called the inner surface grooves) of the second groove (17) formed in it. The inner surface grooves can be closed by an end surface of a cylindrical insert (37) to form corresponding channel parts. A first chemical species can be bound to the end surface of the cylindrical insert (37) so that the first chemical species lies within the channel parts corresponding to the inner surface grooves. A second chemical species can now be passed through the channels of the micro-reactor for binding between the first and second chemical species. By using suitable labels the amount of binding in the channels can be determined.